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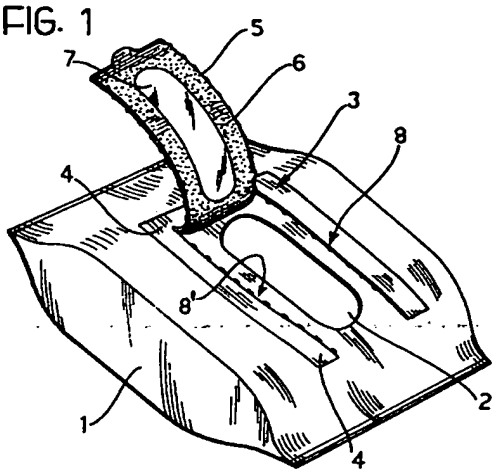
(54) A container-dispenser with an improved closure element, particularly for impregnated wipes and similar products.

(57) A container-dispenser (1) for disposable products such as wipes and the like has a hole (2) for the removal of the products. A closure element (3) in correspondence with the hole (2) includes a fixed portion (4) which surrounds the hole (2) in a generally U-shaped configuration and a movable flap (5) which is intended to cover the hole (2) as a result of the sticking of an adhesive outer portion (6) to the container envelope. The fixed portion (4) and the movable flap (5) are connected by tear lines such as lines of punching (8, 8') which tear when the container (1) is first opened, providing proof of any tampering therewith.

FIG. 1



EP 0 488 967 A1

The present invention relates to a container-dispenser, for example, for holding sheet materials such as disposable wipes, particularly wipes impregnated with a detergent, disinfectant or other liquid.

Container-dispensers for disposable wipes in the form of single sheets, particularly small, thin containers each formed from a sheet of flexible, impermeable material, are well known and all have at least one hole for the removal of the wipes. The hole generally has a closure element which has to be opened and reclosed repeatedly and must continue to seal the container. The closure preferably has means which are modified irreversibly when the container is first opened and which constitute an indication that the first opening has taken place; the lack of such an indication proves to the user that the container has never been opened.

One type of closure element known from previous embodiments is constituted by a flexible, adhesive tag positioned on the outer surface of the container over the hole; the adhesive tag is of a shape such that it covers the hole in the container and closes it completely.

One end of the tag is free so that it can be raised and repositioned on the surface of the container and its opposite end is fixed permanently to the surface; the user grips the free end of the tag and pulls it upwardly and towards its opposite end so as to uncover the underlying hole and gain access to the contents of the container; the opposite end of the tag, which is permanently fixed to the surface of the container, prevents the entire tag from being removed from the container which would necessitate its tiresome and problematical replacement by the user.

The adhesive underside of the tag usually has a non-adhesive region which corresponds to the underlying hole so as to prevent the wipes in the container from coming into contact with the adhesive and being contaminated thereby; this region is usually constituted by the portion of the sheet of flexible, impermeable material of the container which is cut out to form the hole and which sticks permanently to the adhesive underside of the tag when it is applied.

US Patent A 4 723 301 describes a container for wipes which is made of flexible material and has a flexible, reclosable tag, in which the permanent anchorage of one end is achieved by the formation of a pair of symmetrical cuts in the end, each cut starting from a longitudinal edge of the tag and extending first inwardly and then towards the rear end and terminating on the imaginary fixing line in a circular hole for preventing accidental tearing as a result of over-energetic opening; the distance between the cuts is generally greater than the width of the hole in the container.

This embodiment effectively prevents the accidental tearing of the tag but cannot give a direct indication of the first opening of the container unless, for example, a small element of weak material such as a paper seal is stuck over the edge of the free end of the tag, the seal being torn during the first opening so as to show that that operation has taken place; this is a further element, however, and is added after the tag itself has been applied.

One solution to the problem of detecting the first opening of the tag is described in patent EP 0 030 348; in this case, the tag is welded to the surface of the container at its fixed end to prevent accidental tearing.

In a first embodiment, the hole for the removal of the wipes is formed in the sheet of flexible material under the flexible, adhesive tag by punching instead of by a continuous cut; during the first opening, the portion of the sheet which closes the hole thus tears along the punching and remains stuck to the adhesive underside of the tag.

In an alternative configuration, the hole in the material of the container is completely open; the adhesive tag is then applied externally and an element which is of a similar shape to the hole but larger is added from inside and, except for its edges, sticks to the portion of the adhesive tag which corresponds to the hole; when the flexible tag is lifted during the first opening, it forces the closure element adhering to it to pass through the slightly smaller hole.

The indication that the first opening has taken place consists, in the first case, of the tearing of the punching in the element closing the hole and, in the second case, of the positioning outside the hole of the closure element, which is larger than the hole; in both cases, however, the indication is revealed to the user only when the container is opened, but, unless the container is transparent, which solution can generally be adopted only for certain types of product, is not visible when the container is closed, as would be desirable, for example, at the time of purchase.

The problem therefore remains of providing a simplified flexible, adhesive tag which can indicate upon first sight, without the need for additional elements, that the first opening of the container has taken place and which has a structure such as to ensure the permanent anchorage of the fixed end to the surface of the container and to prevent accidental tearing.

The object of the present invention is to improve the characteristics of container-dispensers with reclosable holes, for example, for disposable wipes, by virtue of an improved flexible and adhesive closure element having the characteristics recited in the following claims.

Further characteristics and advantages of the invention will become clear from the description which follows purely by way of indicative but non-limiting example with reference to the appended drawings, in which:

Figure 1 is a perspective view of a container-dispenser formed according to the present invention, shown in the open position, and

Figure 2 is a plan view of a flexible, adhesive closure element for container-dispensers formed according to the present invention.

The closure element of the present invention will be described herein - by way of example - with reference to its use in container-dispensers for disposable wipes, particularly wipes impregnated with a detergent, disinfectant or other liquid, each container-dispenser being formed from a sheet of flexible, impermeable material.

The container-dispenser for disposable wipes shown in Figure 1 represents a preferred embodiment of the closure element according to the present invention but the invention is also intended to be applicable to containers of other types, for example containers which are made of rigid materials or are intended for different products.

Figure 1 shows a container-dispenser 1 with a generally sachet- or envelope-like structure, formed from a sheet of flexible, impermeable material, for example, polyethylene. The container-dispenser 1 has a hole 2 and a closure element 3 which is positioned so as to cover the hole and is shown in the open position. The element 3 includes a fixed portion 4 which is fixed to the external surface of the container 1 in a position distinct from that of the hole 2 and a movable flap 5 which is positioned in correspondence with the hole.

The surface 6 of the closure element 3 which faces the outer surface of the container is covered with a pressure-sensitive adhesive and has a non-adhesive region 7 on its movable flap 5. The shape and position of the non-adhesive region 7 are such that, when the movable flap 5 is in the closed position, the region 7 in question corresponds exactly to the hole 2 in the container 1.

The non-adhesive region 7 has an area equivalent to that of the hole 2 and is preferably constituted by the portion of the sheet of flexible material of the container 1 which is cut out to form the hole 2. This portion sticks firmly to the lower surface 6 when the closure element 3 is applied. Each time the flap 5 is reclosed by being pressed against the outer surface of the container 1, the non-adhesive region 7 thus completely closes the hole 2 preventing the adhesive surface 6 of the flap 5 from coming into contact with the contents of the container.

The hole 2 may be of various shapes, for example elongate or oval, as in the configuration shown, or circular, rectangular, rhomboid, etc., according to need.

The closure element 3, which is shown alone in Figure 2, is rectangular and has two tear lines in the form of two lines 8 and 8' of punching which extend from the edge of one of its shorter sides, are parallel to but shorter than its two longer sides, and define the movable flap 5, which is also rectangular and generally larger than the corresponding hole 2 in the container 1.

Longitudinally of the closure element 3, there can thus be distinguished a front region 9, the length of which corresponds to that of the lines 8 and 8' of punching, and a rear region 10; the fixed portion 4 is thus equivalent to the entire rear region 10 plus two portions 11 and 11' of the front region 9 which are situated outwardly of the lines 8 and 8' of punching, and is thus generally U-shaped. The movable flap 5, however, is wholly within the front region 9, that is, between the arms 11 and 11' of the U.

The movable flap 5 is also characterised by a fixed end 12, by which it is connected to the fixed portion 4 of the closure element 3, and a free end 13 which preferably has a projecting tab 14 for facilitating gripping by the user; for this purpose, the tab 14 is not made sticky, that is, its underside is not covered with adhesive, so that it is separate from the surface of the container-dispenser 1 under all circumstances.

This configuration of the closure element 3 ensures the firm anchorage of the element during each opening operation which is carried out by the free end 13 of the movable flap 5 being gripped by the tab 14 and pulled upwardly and towards the rear region 10; when,, it is pulled, the movable flap 5 is detached from the surface of the container-dispenser 1 until it is fully raised by pivoting about the point at which it is connected to the fixed end 12, and the portions 11 and 11' which extend in the front region 9 prevent the accidental removal of the fixed portion 4 in the event of an over-energetic pull.

The two lines 8 and 8' of punching (or equivalent preferential tear lines) preferably terminate at the fixed end 12 in two semicircular cuts 15 and 15' which may turn inwardly, as shown in Figure 2, or outwardly; this prevents the material of the closure element 3 from tearing beyond the lines of punching in the event of the exertion of an excessive pull during opening.

The closure element 3 is applied to the sheet of flexible material which is intended to form the container 1 with the punched lines 8 and 8' intact and formed so that they can easily be torn during the first opening; intact punched lines thus indicate that the container has never been opened, whereas if the lines are wholly or partially torn the container can be considered to have been opened, even only partially, at least once.

The indication that the first opening has taken place is intrinsic in the structure of the closure element 3 of the present invention which amongst other things ensures the firm anchorage of the movable flap 5, does not involve the addition of further elements or complications in the production of the container 1; moreover, it can readily be detected visually without the need to interfere with the container in any way, as is desirable, for example, at the time of purchase.

Naturally, the scope of the present invention also extends to models which achieve equal utility by means of the same innovative concept and particu-

larly to models in which the lines (8, 8') of punching are replaced by preferential tear lines such as weakened regions, pricking, etc. which are equivalent for the purposes of implementing the invention.

Claims

1. A container-dispenser (1) which has at least one hole (2) with a closure element (3) including a fixed portion (4) which is fixed to the surface of the container (1) in a position at least partially distinct from that of the hole (2) and a movable flap (5), one end of which is joined to the fixed portion (4), for closing the hole (2), characterised in that the fixed portion (4) and the movable flap (5) of the closure element (3) include between them at least one tear line (8, 8') which can be torn at least partially when the movable flap (5) is raised for the first time in order to afford access to the hole (2) in the container.

2. A container-dispenser according to Claim 1, characterised in that the surface of the closure element (3) which is intended to face the surface of the container (1) is covered with adhesive and has a non-adhesive region (7) the shape and position of which are such that, when the movable flap (5) is in the closed position, the non-adhesive region (7) corresponds to the hole (2).

3. A container-dispenser according to Claim 1 or Claim 2, characterised in that the at least one tear line (8, 8') starts at one edge of the closure element (3) and its length is at least equal to one dimension of the hole (2).

4. A container-dispenser according to any one of Claims 1 to 3, characterised in that the closure element (3) is rectangular and the hole (2) is oblong with its larger axis parallel to the longer sides of the closure element.

5. A container-dispenser according to Claim 1 or Claim 4, characterised in that the fixed portion (4) and the movable flap (5) of the closure element (3) include between them two tear lines (8, 8') which start from the edge of a shorter side, are parallel to each other and to the longer sides of the closure element (3), and are longer than the larger dimension of the hole.

6. A container-dispenser according to Claim 5, characterised in that the fixed portion (4) of the closure element (3) is generally U-shaped.

7. A container-dispenser according to Claim 2, characterised in that the movable flap (5) has a non-adhesive free end (14) which forms a tab by which it can be gripped.

8. A container-dispenser according to any one of the preceding claims, characterised in that the end of the at least one tear line (8, 8') at which the tearing movement finishes, terminates in a portion (15, 15') in which the tear line turns aside from its general path, so as to prevent the closure element (3) from being torn beyond that end.

9. A container-dispenser according to Claim 8, characterised in that the portion (15, 15') is generally arcuate.

10. A container-dispenser according to any one of the preceding claims, characterised in that the at least one tear line is a line of punching (8, 8').

11. A container-dispenser for disposable products such as wipes and similar products having characteristics according to one of the preceding claims.

FIG. 1

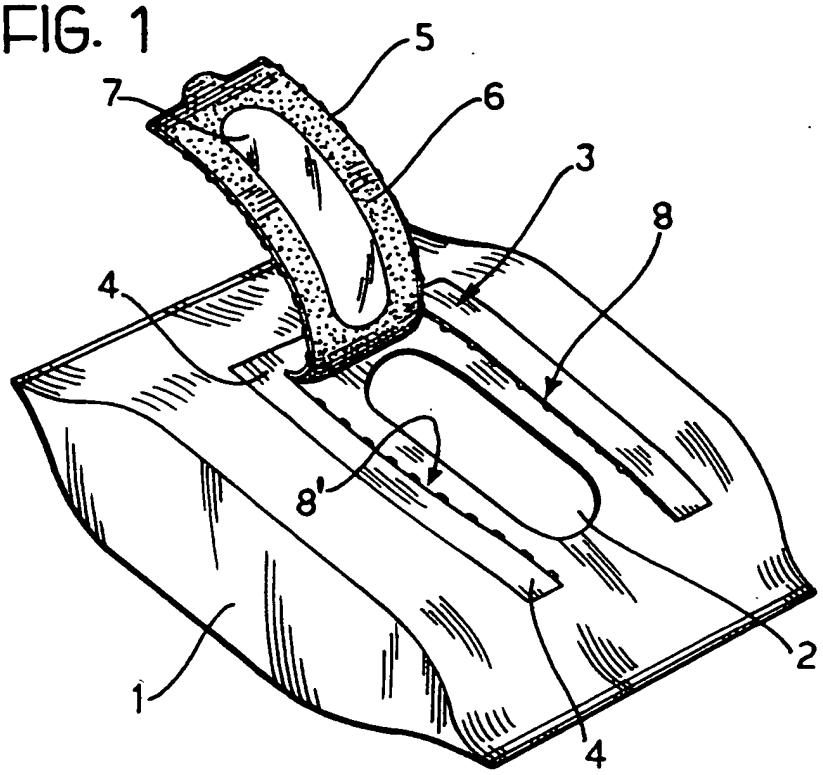
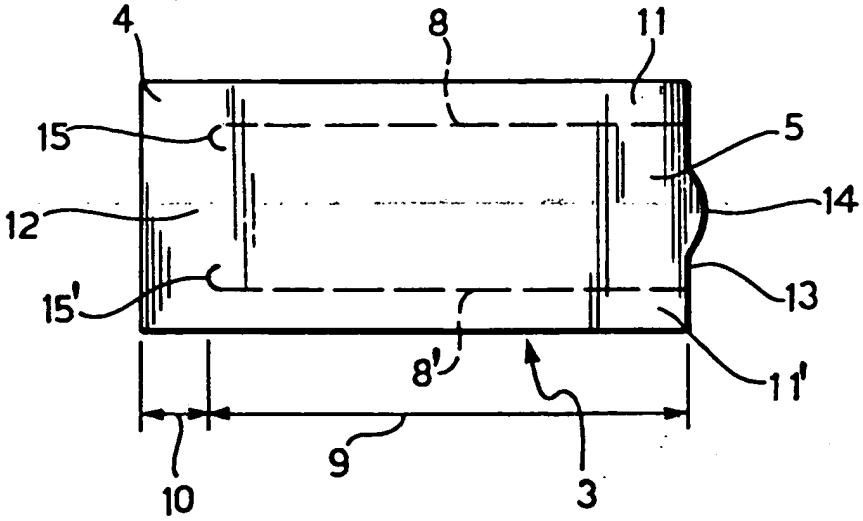


FIG. 2



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EUROPEAN SEARCH REPORT

Application Number

EP 91 83 0517

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4 679 693 (FORMAN) * the whole document *	1-11	B65D83/08 B65D75/58
X	EP-A-0 249 337 (FORMAN) * the whole document *	1-11	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	10 FEBRUARY 1992	LEONG, C. Y.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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